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Claims

Sub A 4) 1. A method of forming a blister pack comprising contacting a base sheet having a blister pocket ^{containing a product} therein with a cover sheet and applying laser energy to form a ^{hermetically sealing} join between said cover sheet and said blister pocket of said base sheet.

2. A method according to claim 1, wherein the base sheet has a plurality of blister pockets therein and laser energy is applied to form a join between the cover sheet and each blister pocket of said base sheet.

3. A method according to claim 2, wherein the base sheet and cover sheet are elongate and the base sheet has a plurality of blister pockets spaced therealong.

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4. A method according to claim 3, wherein laser energy is applied to join each blister pocket of the elongate base sheet in a sequential fashion.

Sub A 5) 5. A method according to any of claims 1 to 4, wherein the laser energy derives from a laser source which is movable relative to the base and cover sheet to enable correct positioning of the join.

6. A method according to any of claims 1 to 4, wherein the laser energy derives from a fixed laser source and the base and cover sheet are movable to enable correct positioning of the join.

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7. A method according to any of claims 1 to 4, wherein the laser energy is guidable by means of a guide mechanism to enable correct positioning of the join.

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8. A method according to claim 7, wherein said guide mechanism includes one or more movable mirrors.

9. A method according to claim 7, wherein the guide mechanism includes one or more galvanometer scanners.

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~~10. A method according to any of claims 1 to 9, wherein the join comprises a hermetic seal.~~

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Sub A⁶ 10

11. A method according to any of claims 1 to ~~10~~, wherein the join has a zig-zag configuration.

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5 11 ~~12~~. A method according to any of claims 1 to ~~10~~, wherein the join has a multi-dot configuration.

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12 ~~13~~. A method according to any of claims 1 to ~~10~~, wherein the join is continuous.

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13 ~~14~~. A method according to any of claims 1 to ~~13~~, wherein the laser energy is supplied by a laser source having a maximum average power of from 10W to 200W, and a maximum peak power of from 1kW to 10kW.

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15 14 ~~15~~. A method according to any of claims 1 to ~~14~~, wherein the laser energy is applicable in continuous fashion.

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15 ~~16~~. A method according to any of claims 1 to ~~14~~, wherein the laser energy is applicable in pulsed fashion.

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16 ~~17~~. A method according to claim ~~16~~, wherein the laser source has a pulse width of from 0.5 to 20 microseconds and a maximum pulse energy of from 10 to 100 Joules.

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25 13 ~~18~~. A method according to any of claims 1 to ~~17~~, wherein the join has a join width of from 5µm to 10mm, preferably from 10µm to 1mm, more preferably from 10 to 200µm, most preferably from 20 to 100µm.

Sub A⁷

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18 ~~19~~. A method according to any of claims 1 to ~~18~~, wherein the base sheet and cover sheet comprise material selected from the group consisting of metal foil, an organic polymeric material and paper.

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19 ~~20~~. A method according to claim ~~19~~, wherein the base sheet and cover sheet comprise different materials.

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Sub A⁸ 20

21. A method according to either of claims ~~19~~ or ~~20~~, wherein the base sheet and/or the cover sheet comprises a laminate.

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21 ~~22~~: A method according to any of claims 1 to ¹⁷~~21~~, additionally comprising applying laser energy to form one or more additional joins between each blister pocket.

5 ~~22~~ ²¹~~23~~: A method according to claim ~~22~~, wherein said one or more additional joins are concentric to the join.

Sub A⁹ 10 ~~23~~ ²²~~24~~: A method according to any of claims 1 to ~~23~~, additionally comprising foldably interlocking the base sheet with the cover sheet to provide a plurality of join sites therebetween and applying laser energy to form plural joins at each said site.

15 ~~24~~ ²³~~25~~: A method according to any of claims 1 to ~~24~~, additionally comprising applying laser energy to form score lines on the or each cover sheet and/or base sheet.

~~25~~ ²⁴~~26~~: A method according to claim ~~25~~, wherein said score lines facilitate access to each blister pocket.

20 ~~26~~ ²⁴~~27~~: A method according to claim ~~26~~, wherein the score lines facilitate separation of an individual blister pocket from the blister pack.

25 ~~27~~ ²⁴~~28~~: A method according to claim ~~27~~, wherein the score lines facilitate visual and/or electronic identification of said blister pack and/or blister pocket.

Sub A¹⁰ ~~28~~ ²⁷~~29~~: A method according to any of claims 1 to ~~28~~, additionally comprising applying laser energy to cut the blister pack.

30 ~~29~~ ²⁸~~30~~: A method according to claim ~~29~~, comprising cutting the blister pack to a specifiable shape.

Sub A¹¹ 35 ~~30~~ ²⁸ ²⁹~~31~~: A method according to either of claims ~~29~~ or ~~30~~, comprising cutting the blister pack to a specifiable size.

31 ~~32~~ ²⁸ ³⁰: A method according to any of claims ~~29~~ to ~~31~~, comprising cutting the blister pack to provide sprocket holes therein.

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32 ~~33~~. A method according to claim ~~32~~, comprising cutting semi-circular incisions in the blister pack depressible to form sprocket holes therein.

Sub A 12/5 33 ~~34~~. A method according to any of claims 1 to ~~33~~, wherein the method is controllable by a computer.

~~35. A method according to any of claims 1 to 34 additionally comprising pre-filling the or each blister pocket with a product.~~

any of 1 to 33
10 34 ~~35~~. A method according to claims 35, wherein said product is an electronic component.

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15 35 ~~37~~. A method according to claim ~~36~~, wherein said electronic component is selected from the group consisting of semi-conductor, integrated circuit chip, fuse and battery.

any of 1 to 33
36 ~~38~~. A method according to claims 35, wherein the product is a food.

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20 37 ~~39~~. A method according to claim ~~38~~, wherein said food is selected from the group consisting of meat, mycoprotein, milk, cheese, flour, pasta, rice, oil, sugar, confectionery, vegetable, herbal, snack, convenience and fruit foodstuffs.

any of 1 to 33
25 38 ~~40~~. A method according to claims 35, wherein the product comprises a beverage.

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30 39 ~~41~~. A method according to claim ~~40~~, wherein said beverage is selected from the group consisting of water, milk, coffee, cocoa, tea, fruit, carbonated and alcoholic drinks.

any of 1 to 33
40 40 ~~42~~. A method according to claims 35, wherein the product comprises a toiletry.

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35 41 ~~43~~. A method according to claim ~~42~~, wherein said toiletry is selected from the group consisting of toothpaste, soap, mouthwash, shampoo, skin and face cream.

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any of 1 to 33

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42 ~~44~~. A method according to ¹⁹claim ~~35~~, wherein the product comprises a cleanser.

43 ~~45~~. A method according to claim ⁴²~~44~~, wherein said cleanser is
5 selected from the group consisting of soap, detergent, enzymic preparation and organic solvent.

44 ~~46~~. A method according to ^{any of 1 to 33}claim ~~35~~, wherein the product comprises a disinfectant.

10 45 ~~47~~. A method according to claim ⁴⁴~~46~~, wherein said disinfectant is selected from the group consisting of sterilant, antiseptic and bleach.

46 ~~48~~. A method according to ^{any of 1 to 33}claim ~~35~~, wherein the product comprises a
15 light-sensitive material.

47 ~~49~~. A method according to claim ⁴⁶~~48~~, wherein said light-sensitive material comprises a photographic film.

20 48 ~~50~~. A method according to ^{any of 1 to 33}claim ~~35~~, wherein the product comprises a marking material.

49 ~~51~~. A method according to claim ⁴⁸~~50~~, wherein said marking material is
25 selected from the group consisting of toner, ink, dye, pigment, acid and alkali.

50 ~~52~~. A method according to ^{any of 1 to 33}claim ~~35~~, wherein the product comprises a covering material.

30 51 ~~53~~. A method according to claim ⁵⁰~~52~~, wherein said covering material is selected from the group consisting of paint, pigment, dye, corrosion inhibitor, electrical conductor, electrical insulator and static inhibitor.

52 ~~54~~. A method according to ^{any of 1 to 33}claim ~~35~~, wherein the product comprises a
35 toy.

53 ~~55~~. A method according to claim ⁵²~~54~~, wherein said toy is selected from the group consisting of model, figure, doll, animal, jig-saw and game.

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any of 1 to 33

54 ~~58~~. A method according to claim 33, wherein the product comprises haberdashery.

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5 ~~55~~ ~~57~~. A method according to claim ~~58~~, wherein said haberdashery is selected from the group consisting of button, bobbin, needle, pin, eye, hook and fastener.

any of 1 to 33

10 ~~56~~ ~~58~~. A method according to claim 33, wherein the product comprises a tool.

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~~57~~ ~~59~~. A method according to claim ~~58~~, wherein said tool comprises a domestic tool.

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15 ~~58~~ ~~60~~. A method according to claim ~~59~~, wherein said domestic tool is selected from the group consisting of can opener, bottle opener, ring-pull opener, scissors, knife, fork and spoon.

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20 ~~59~~ ~~61~~. A method according to claim ~~58~~, wherein said tool comprises a home maintenance tool.

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60 ~~62~~. A method according to claim ~~61~~, wherein said home maintenance tool is selected from the group consisting of nail, screw, pin, wire, screwdriver, knife, brush, spanner, ruler and marker.

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any of 1 to 33

61 ~~63~~. A method according to claim 33, wherein the product comprises stationery.

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30 ~~62~~ ~~64~~. A method according to claim ~~63~~, wherein said stationery is selected from the group consisting of pencil, pen, ruler, crayon, eraser, marker, stencil, protractor, compass and paper.

any of 1 to 33

63 ~~65~~. A method according to claim 33, wherein the product is an adhesive.

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64 ~~66~~. A method according to claim ~~65~~, wherein said adhesive bonds materials selected from the group consisting of paper, plastic, wood, rubber, glass and metal.

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any of 1 to 33

65 67. A method according to claims 35 wherein the product is an agrochemical.

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5 66 68. A method according to claim 67, wherein said agrochemical is selected from the group consisting of herbicide, insecticide, fungicide, rodenticide, nematocide, acaricide and plant growth regulator.

any of 1 to 33

10 67 69. A method according to claims 35 wherein the product comprises a plant seed.

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68 70. A method according to claim 69, wherein said seed is derived from plants selected from the group consisting of monocotyledonous and dicotyledonous plants.

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any of 1 to 33

69 71. A method according to claims 35 wherein the product comprises a contraceptive.

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20 70 72. A method according to claim 71, wherein said contraceptive is either a contraceptive device or a contraceptive drug.

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71 73. A method according to claim 72, wherein said contraceptive device is selected from the group consisting of condom, diaphragm, sponge and coil.

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72 74. A method according to claim 72, wherein said contraceptive drug is selected from the group consisting of spermicide, estrogen, ethinyl estradiol, progesterone, levonorgestrel and norgestrel.

any of 1 to 33

30 73 75. A method according to claims 35 wherein the product comprises a medical instrument.

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74 76. A method according to claim 75, wherein said medical instrument is selected from the group consisting of scalpel, thermometer and syringe.

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any of 1 to 33

75 77. A method according to claims 35 wherein the product comprises laboratory equipment.

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76 78. A method according to claim ~~77~~, wherein said equipment is selected from the group consisting of dispenser tip, microbial filter, filter paper, aseptic container, petri-plate, vial, test tube, tissue-culture vessel and pipette.

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any of 1 to 33

77 79. A method according to ~~claims 35~~, wherein the product comprises a catemenial product.

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78 80. A method according to claim 79, wherein said catemenial product comprises a tampon.

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any of 1 to 33

79 81. A method according to ~~claims 35~~, wherein the product comprises a medicament.

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15 80 82. A method according to claim 81, wherein said medicament is in dry powder, tablet, liquid, paste, cream or capsular form.

Sub 13

81 83. A method according to either of ~~claims 81~~ or ~~82~~, wherein said medicament is selected from the group consisting of albuterol, salmeterol, ipratropium bromide, fluticasone propionate and beclomethasone dipropionate and salts or solvates thereof and any mixtures thereof.

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82 84. Blister pack formable by the method of any of claims 1 to ~~50~~.

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